In the Claims

This listing of claims will replace all prior versions and listings of claims in this application.

39 (currently amended) A method for monitoring ventilation support for a patient having an airway, wherein said method comprises:

(1) ~~providing~~ utilizing a monitoring system comprising:

(a) a plurality of measuring sensors ~~adapted to~~ that monitor the patient, or ~~to~~ that monitor a breathing circuit coupled to the airway of the patient, each measuring sensor generating an output signal, and

(b) an intelligence system ~~adapted to receive the~~ that receives at least one of the output signals, wherein the intelligence system evaluates at least one output signal to determine the appropriateness of ventilation for the patient;

(2) receiving into the intelligence system at least one of the output signals;

(3) implementing the intelligence system, without clinician input, to evaluate the at least one output signal to determine the appropriateness of ventilation for the patient; and

(4) recommending, without clinician input, a setting for at least one of the plurality of ventilator setting controls based on the evaluation of the at least one output signal by the intelligence system, wherein said setting is appropriate for the patient at that particular time.

40 (previously presented). The method of claim 39, further comprising providing a ventilator adapted to supply a gas to a patient via a breathing circuit in fluid communication with at least one lung of the patient, wherein the ventilator is operatively connected to the intelligence system, and wherein the ventilator includes a plurality of ventilator setting controls, wherein each ventilator setting control controls a parameter relating to the supply of gas from the ventilator to the patient.

41 (previously presented). The method of claim 40, further comprising:

causing the ventilator to generate a ventilator parameter signal indicative of a parameter related to the supply of gas from the ventilator to the patient; and

providing the ventilator parameter signal to the intelligence system, wherein the intelligence system evaluates the at least one output signal and the ventilator parameter signal to determine the appropriateness of ventilation.

42 (previously presented). The method of claim 40, further comprising adjusting at least one of the plurality of ventilator setting controls based on the setting determined in the recommending step.

43 (previously presented). The method of claim 39, wherein said output signals are selected from the group consisting of: an exhaled carbon dioxide signal indicative of the exhaled carbon dioxide (ExCO2) level of the exhaled gas expired by the patient within the breathing circuit; a flow rate signal indicative of the flow rate (V) of the inhaled/exhaled gas expired by the patient within the breathing circuit; a pulse oximeter hemoglobin oxygen saturation (SpO2) signal indicative of the oxygen saturation level of the patient; a pressure (P) signal indicative of the pressure of the breathing gas within the breathing circuit; a blood pressure (BP) signal indicative of the blood pressure of the patient; and a temperature (T) signal indicative of the core body temperature of the patient.

44 (previously presented). The method of claim 43, wherein the output signals also include at least one of the group consisting of: an arterial blood gas PaO2 signal; an arterial blood gas PaCO2 signal; and an arterial blood gas pH signal.

45 (previously presented). The method of claim 39, wherein the ventilator parameter signals include at least one of the group consisting of: a minute ventilation (V_E) signal; a ventilator breathing frequency of (f) signal; a tidal volume (V_T) signal; a breathing gas flow rate (V) signal; a pressure limit signal; a work of breathing (WOB) signal; a pressure support ventilation (PSV) signal; a positive end expiratory pressure (PEEP) signal; a continuous positive airway pressure (CPAP) signal; and a fractional inhaled oxygen concentration (FIO2) signal.

46 (previously presented). The method of claim 39, further comprising displaying the recommended settings of the ventilator setting controls.

47 (previously presented). The method of claim 39, wherein the intelligence system comprises a neural network, and wherein recommending the settings of the ventilator setting controls of the ventilator comprises applying at least a portion of the output signals and the ventilator parameter signals to the neural network of the intelligence system to determine the recommended settings of the ventilator setting controls.

48 (previously presented). The method of claim 39, further comprising:
selecting output signals for display; and
displaying the selected output signals in real time.

49 (previously presented). The method of claim 39, further comprising displaying at least one of the recommended ventilator setting control settings.

50 (previously presented). The method of claim 39, wherein the intelligence system is programmed with a set of decision rules.

51 – 62 (cancel).